

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 09/840,277E  
Source: IFW16  
Date Processed by STIC: 1/30/05

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 01/30/2005

PATENT APPLICATION: US/09/840,277E

TIME: 11:55:41

Input Set : A:\A-688A (rev 1-18-05).ST25.txt

Output Set: N:\CRF4\01302005\I840277E.raw

3 <110> APPLICANT: FEIGE, ULRICH  
 4 KOHNO, TADAHIKO  
 5 LACEY, DAVID  
 6 BOONE, THOMAS CHARLES  
 8 <120> TITLE OF INVENTION: ADHESION ANTAGONISTS (as amended)  
 10 <130> FILE REFERENCE: A-688A  
 12 <140> CURRENT APPLICATION NUMBER: US 09/840,277E  
 13 <141> CURRENT FILING DATE: 2001-04-23  
 15 <150> PRIOR APPLICATION NUMBER: US 60/198,919  
 16 <151> PRIOR FILING DATE: 2000-04-21  
 18 <150> PRIOR APPLICATION NUMBER: US 60/201,394  
 19 <151> PRIOR FILING DATE: 2000-05-03  
 21 <160> NUMBER OF SEQ ID NOS: 161  
 23 <170> SOFTWARE: PatentIn version 3.2  
 25 <210> SEQ ID NO: 1  
 26 <211> LENGTH: 684  
 27 <212> TYPE: DNA  
 28 <213> ORGANISM: Homo sapiens  
 31 <220> FEATURE:  
 32 <221> NAME/KEY: CDS  
 33 <222> LOCATION: (1)..(684)  
 35 <400> SEQUENCE: 1

36	atg gac aaa act cac aca tgt cca cct tgt cca gct ccg gaa ctc ctg	48
37	Met Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu	
38	1 5 10 15	
40	ggg gga ccg tca gtc ttc ctc ttc ccc cca aaa ccc aag gac acc ctc	96
41	Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu	
42	20 25 30	
44	atg atc tcc cgg acc cct gag gtc aca tgc gtg gtg gtg gac gtg agc	144
45	Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser	
46	35 40 45	
48	cac gaa gac cct gag gtc aag ttc aac tgg tac gtg gac ggc gtg gag	192
49	His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu	
50	50 55 60	
52	gtg cat aat gcc aag aca aag ccg cgg gag gag cag tac aac agc acg	240
53	Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr	
54	65 70 75 80	
56	tac cgt gtg gtc agc gtc ctc acc gtc ctg cac cag gac tgg ctg aat	288
57	Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn	
58	85 90 95	
60	ggc aag gag tac aag tgc aag gtc tcc aac aaa gcc ctc cca gcc ccc	336
61	Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro	
62	100 105 110	

P.6

## RAW SEQUENCE LISTING

DATE: 01/30/2005

PATENT APPLICATION: US/09/840,277E

TIME: 11:55:41

Input Set : A:\A-688A (rev 1-18-05).ST25.txt

Output Set: N:\CRF4\01302005\I840277E.raw

```

64 atc gag aaa acc atc tcc aaa gcc aaa ggg cag ccc cga gaa cca cag      384
65 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
66      115      120      125
68 gtg tac acc ctg ccc cca tcc cgg gat gag ctg acc aag aac cag gtc      432
69 Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
70      130      135      140
72 agc ctg acc tgc ctg gtc aaa ggc ttc tat ccc agc gac atc gcc gtg      480
73 Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
74 145      150      155      160
76 gag tgg gag agc aat ggg cag ccg gag aac aac tac aag acc acg cct      528
77 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
78      165      170      175
80 ccc gtg ctg gac tcc gac ggc tcc ttc ttc ctc tac agc aag ctc acc      576
81 Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
82      180      185      190
84 gtg gac aag agc agg tgg cag cag ggg aac gtc ttc tca tgc tcc gtg      624
85 Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
86      195      200      205
88 atg cat gag gct ctg cac aac cac tac acg cag aag agc ctc tcc ctg      672
89 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
90      210      215      220
92 tct ccg ggt aaa      684
93 Ser Pro Gly Lys
94 225
97 <210> SEQ ID NO: 2
98 <211> LENGTH: 228
99 <212> TYPE: PRT
100 <213> ORGANISM: Homo sapiens
102 <400> SEQUENCE: 2
104 Met Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
105 1      5      10      15
108 Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
109      20      25      30
112 Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
113      35      40      45
116 His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
117      50      55      60
120 Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
121 65      70      75      80
124 Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
125      85      90      95
128 Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
129      100      105      110
132 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
133      115      120      125
136 Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
137      130      135      140
140 Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
141 145      150      155      160

```

## RAW SEQUENCE LISTING

DATE: 01/30/2005

PATENT APPLICATION: US/09/840,277E

TIME: 11:55:41

Input Set : A:\A-688A (rev 1-18-05).ST25.txt

Output Set: N:\CRF4\01302005\I840277E.raw

```

144 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
145           165           170           175
148 Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
149           180           185           190
152 Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
153           195           200           205
156 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
157           210           215           220
160 Ser Pro Gly Lys
161 225
164 <210> SEQ ID NO: 3
165 <211> LENGTH: 8
166 <212> TYPE: PRT
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Preferred linker
172 <400> SEQUENCE: 3
174 Gly Gly Gly Lys Gly Gly Gly Gly
175 1           5
178 <210> SEQ ID NO: 4
179 <211> LENGTH: 8
180 <212> TYPE: PRT
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Preferred linker
186 <400> SEQUENCE: 4
188 Gly Gly Gly Asn Gly Ser Gly Gly
189 1           5
192 <210> SEQ ID NO: 5
193 <211> LENGTH: 8
194 <212> TYPE: PRT
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Preferred linker
200 <400> SEQUENCE: 5
202 Gly Gly Gly Cys Gly Gly Gly Gly
203 1           5
206 <210> SEQ ID NO: 6
207 <211> LENGTH: 5
208 <212> TYPE: PRT
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Preferred linker
214 <400> SEQUENCE: 6
216 Gly Pro Asn Gly Gly
217 1           5
220 <210> SEQ ID NO: 7
221 <211> LENGTH: 5
222 <212> TYPE: PRT

```

## RAW SEQUENCE LISTING

DATE: 01/30/2005

PATENT APPLICATION: US/09/840,277E

TIME: 11:55:41

Input Set : A:\A-688A (rev 1-18-05).ST25.txt

Output Set: N:\CRF4\01302005\I840277E.raw

```

223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Laminin peptide
228 <400> SEQUENCE: 7
230 Tyr Ile Gly Ser Arg
231 1 5
234 <210> SEQ ID NO: 8
235 <211> LENGTH: 49
236 <212> TYPE: PRT
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Echistatin peptide
242 <400> SEQUENCE: 8
244 Glu Cys Glu Ser Gly Pro Cys Cys Arg Asn Cys Lys Phe Leu Lys Glu
245 1 5 10 15
248 Gly Thr Ile Cys Lys Arg Ala Arg Gly Asp Asp Met Asp Asp Tyr Cys
249 20 25 30
252 Asn Gly Lys Thr Cys Asp Cys Pro Arg Asn Pro His Lys Gly Pro Ala
253 35 40 45
256 Thr
260 <210> SEQ ID NO: 9
261 <211> LENGTH: 7
262 <212> TYPE: PRT
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: RGD, NGR derivative peptide
269 <220> FEATURE:
270 <221> NAME/KEY: misc_feature
271 <222> LOCATION: (2, 5 and)..(7)
272 <223> OTHER INFORMATION: Xaa is any amino acid
274 <400> SEQUENCE: 9
W--> 276 Arg Xaa Glu Thr Xaa Trp Xaa
277 1 5
280 <210> SEQ ID NO: 10
282 <400> SEQUENCE: 10
W--> 283 000
285 <210> SEQ ID NO: 11
286 <211> LENGTH: 9
287 <212> TYPE: PRT
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: RGD, NGR derivative peptide
294 <220> FEATURE:
295 <221> NAME/KEY: misc_feature
296 <222> LOCATION: (2, 3, 7 and)..(8)
297 <223> OTHER INFORMATION: Xaa is any amino acid
299 <400> SEQUENCE: 11
W--> 301 Cys Xaa Xaa Arg Leu Asp Xaa Xaa Cys
302 1 5

```

## RAW SEQUENCE LISTING

DATE: 01/30/2005

PATENT APPLICATION: US/09/840,277E

TIME: 11:55:41

Input Set : A:\A-688A (rev 1-18-05).ST25.txt

Output Set: N:\CRF4\01302005\I840277E.raw

```

305 <210> SEQ ID NO: 12
307 <400> SEQUENCE: 12
W--> 308 000
310 <210> SEQ ID NO: 13
311 <211> LENGTH: 9
312 <212> TYPE: PRT
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: RGD, NGR derivative peptide
319 <220> FEATURE:
320 <221> NAME/KEY: misc_feature
321 <222> LOCATION: (1, 2, 3, 7, 8 and)..(9)
322 <223> OTHER INFORMATION: Xaa is any amino acid with Xaa at 1, 3, 7 and 9 capable of
323     forming a bridge.
325 <400> SEQUENCE: 13
W--> 327 Xaa Xaa Xaa Arg Gly Asp Xaa Xaa Xaa
328 1             5
331 <210> SEQ ID NO: 14
332 <211> LENGTH: 17
333 <212> TYPE: PRT
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: RGD, NGR derivative peptide
340 <220> FEATURE:
341 <221> NAME/KEY: misc_feature
342 <222> LOCATION: (2, 3, 4, 5, 6, 12, 13, 14, 15 and)..(16)
343 <223> OTHER INFORMATION: At positions 2, 3, 4, 5, 6, 12, 13, 14, 15 and 16, Xaa is
any
344     amino acid or may be absent.
346 <400> SEQUENCE: 14
W--> 348 Cys Xaa Xaa Xaa Xaa Xaa Cys Arg Gly Asp Cys Xaa Xaa Xaa Xaa Xaa
349 1             5             10             15
352 Cys
356 <210> SEQ ID NO: 15
357 <211> LENGTH: 8
358 <212> TYPE: PRT
359 <213> ORGANISM: Artificial Sequence
361 <220> FEATURE:
362 <223> OTHER INFORMATION: RGD, NGR derivative peptide
365 <220> FEATURE:
366 <221> NAME/KEY: misc_feature
367 <222> LOCATION: (1 and)..(8)
368 <223> OTHER INFORMATION: Xaa is an independently selected amino acid.
370 <220> FEATURE:
371 <221> NAME/KEY: misc_feature
372 <222> LOCATION: (2 and)..(7)
373 <223> OTHER INFORMATION: Xaa is any amino acid, each which is independently selected.
375 <220> FEATURE:
376 <221> NAME/KEY: misc_feature
377 <222> LOCATION: (5)..(5)

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/840,277E

DATE: 01/30/2005  
TIME: 11:55:42

Input Set : A:\A-688A (rev 1-18-05).ST25.txt  
Output Set: N:\CRF4\01302005\I840277E.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 2,5,7  
Seq#:11; Xaa Pos. 2,3,7,8  
Seq#:13; Xaa Pos. 1,2,3,7,8,9  
Seq#:14; Xaa Pos. 2,3,4,5,6,12,13,14,15,16  
Seq#:15; Xaa Pos. 1,2,5,6,7,8  
Seq#:16; Xaa Pos. 1,2,3,6,7,8,9,10  
Seq#:17; Xaa Pos. 3,5,6,13,15  
Seq#:18; Xaa Pos. 2,3,4,7,15  
Seq#:19; Xaa Pos. 3,4,5,6,8,13,15,18  
Seq#:20; Xaa Pos. 2,5,6,7,12,13,14  
Seq#:21; Xaa Pos. 1,3,6,9,12,13  
Seq#:40; Xaa Pos. 3,4  
Seq#:50; Xaa Pos. 2,3  
Seq#:58; Xaa Pos. 5  
Seq#:59; Xaa Pos. 6  
Seq#:86; Xaa Pos. 3,15  
Seq#:87; Xaa Pos. 13,15  
Seq#:138; Xaa Pos. 1,4,5,6  
Seq#:139; Xaa Pos. 1,2,5,6,7  
Seq#:140; Xaa Pos. 1,2,3,6,7,8  
Seq#:141; Xaa Pos. 1,2,3,4,5,8,9,10  
Seq#:142; Xaa Pos. 1,4,5,6,7  
Seq#:143; Xaa Pos. 1,2,3,6,7,8  
Seq#:144; Xaa Pos. 1,2,3,6,7,8,9  
Seq#:145; Xaa Pos. 1,2,3,4,7,8,9,10  
Seq#:146; Xaa Pos. 1,2,3,4,5,8,9,10,11  
Seq#:147; Xaa Pos. 1,4,5,6,7,8  
Seq#:148; Xaa Pos. 1,2,5,6,7,8,9  
Seq#:149; Xaa Pos. 1,2,3,6,7,8,9,10  
Seq#:150; Xaa Pos. 1,2,3,4,7,8,9,10,11  
Seq#:151; Xaa Pos. 1,2,3,4,5,8,9,10,11,12  
Seq#:152; Xaa Pos. 1,4,5,6,7,8,9  
Seq#:153; Xaa Pos. 1,2,5,6,7,8,9,10  
Seq#:154; Xaa Pos. 1,2,3,6,7,8,9,10,11  
Seq#:155; Xaa Pos. 1,2,3,4,7,8,9,10,11,12  
Seq#:156; Xaa Pos. 1,2,3,4,5,8,9,10,11,12,13  
Seq#:157; Xaa Pos. 1,4,5,6,7,8,9,10  
Seq#:158; Xaa Pos. 1,2,5,6,7,8,9,10,11  
Seq#:159; Xaa Pos. 1,2,3,6,7,8,9,10,11,12  
Seq#:160; Xaa Pos. 1,2,3,4,7,8,9,10,11,12,13  
Seq#:161; Xaa Pos. 1,2,3,4,5,8,9,10,11,12,13,14

## VERIFICATION SUMMARY

DATE: 01/30/2005

PATENT APPLICATION: US/09/840,277E

TIME: 11:55:42

Input Set : A:\A-688A (rev 1-18-05).ST25.txt

Output Set: N:\CRF4\01302005\I840277E.raw

L:276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:283 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE:  
L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:308 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (12) SEQUENCE:  
L:327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
L:348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
M:341 Repeated in SeqNo=19  
L:524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0  
L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0  
L:962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0  
L:1108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0  
L:1128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0  
L:1524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0  
L:1544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0  
L:2634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:0  
L:2670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:0  
L:2706 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:0  
L:2742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:0  
L:2778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:142 after pos.:0  
L:2814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:0  
L:2850 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:0  
L:2886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145 after pos.:0  
L:2922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:0  
L:2958 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:0  
L:2994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:148 after pos.:0  
L:3030 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:149 after pos.:0  
L:3066 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:0  
L:3102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:0  
L:3138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:0  
L:3174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153 after pos.:0  
L:3210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:0  
L:3246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:0  
L:3282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:0  
L:3318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:157 after pos.:0  
L:3354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:158 after pos.:0  
L:3390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:0  
L:3426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:160 after pos.:0  
L:3462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:161 after pos.:0